

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-35-AD; Amendment 39-12767; AD 2002-11-06]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Boeing Model 777 series airplanes, that currently requires repetitive inspections to detect cracking of the cove skin on the outboard leading edge slats, and corrective actions, if necessary. The existing AD also provides for an optional modification that significantly increases the repetitive inspection interval. This amendment expands the applicability of the existing AD by mandating the currently required inspections, and corrective actions, if necessary, for additional airplanes. Also, for airplanes on which the optional modification has been accomplished, this action requires a new one-time inspection for undersized seal inserts in the spanwise bulb seals on certain slats, and replacement of seal assemblies with new assemblies, if necessary. The actions specified by this AD are intended to detect and correct cracking or missing pieces of the cove skin, or undersized seal inserts installed in the spanwise bulb seals, on the outboard leading edge slats on the wings, which could result in skin separation or structural damage to the leading edge slats and consequent reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective July 10, 2002.

The incorporation by reference of Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001, as listed in the regulations, is approved by the Director of the Federal Register as of July 10, 2002.

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of October 10, 2000 (65 FR 57282, September 22, 2000).

The incorporation by reference of Boeing Alert Service Bulletin 777-57A0034, Revision 2, dated November 19, 1998, as listed in the regulations, was approved previously by the Director of the Federal Register as of March 8, 1999 (64 FR 8230, February 19, 1999).

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Suzanne Masterson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2772; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2000-19-08, amendment 39-11909 (65 FR 57282, September 22, 2000), which is applicable to certain Boeing Model 777 series airplanes, was published in the Federal Register on November 28, 2001 (66 FR 59387). The existing AD requires repetitive inspections to detect cracking of the cove skin on the outboard leading edge slats, and corrective actions, if necessary. The existing AD also provides for an optional modification that significantly increases the repetitive inspection interval. The action proposed to expand the applicability of the existing AD by mandating the currently required inspections, and corrective actions, if necessary, for additional airplanes. Also, for airplanes on which the optional modification has been accomplished, the action proposed to require a new one-time inspection for undersized seal inserts in the spanwise bulb seals on certain slats, and replacement of seal assemblies with new assemblies, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Change Paragraph (f)

Two commenters ask that paragraph (f) of the proposed rule be changed to specify that the one-time inspection is not necessary if the kits used to install the inserts contain the correct size inserts, and note that the manufacturer verified that undersize seal inserts were limited to kits supplied before October 6, 2000. The commenters add that seal inserts obtained from the manufacturer AFTER October 6, 2000, should be acceptable for compliance with paragraph (f) of the proposed rule.

The FAA agrees with the commenter. We received substantiating data from the manufacturer that verifies the commenters' data, and have changed paragraph (f) of this final rule accordingly.

Limit Applicability

One commenter (the manufacturer) asks that the applicability in the proposed rule be limited to line numbers 1 through 369 for Group 3 airplanes. The commenter states that Production Provision Report (PRR) 61777-119, Part B, changes the material and attachment of the cove skin and trailing edge wedge for airplanes having line numbers 370 and on.

We agree with the commenter. We have reviewed PRR 61777-119, Part B, and find that it justifies limiting the applicability of this final rule. The applicability in this final rule has been changed accordingly.

Change Paragraph (f)(2)

One commenter asks that an option be added to paragraph (f)(2) of the proposed rule as an alternative to replacement of any undersized seal insert or any seal insert that cannot be conclusively determined to be of correct size. The option would allow accomplishment of the initial inspection per Part 1, Cove Skin Inspection, as specified in Revision 5 of the referenced service bulletin, and repeat that inspection every 100 flight cycles.

We do not agree with the commenter. The commenter did not provide sufficient technical data justifying the increased risk associated with requiring repetitive inspections instead of replacement. However, we would consider this option under the provisions for requesting approval of an alternative method of compliance, as provided in paragraph (h)(1) of this final rule. No change is made to the final rule in this regard.

Revised Service Information

One commenter asks that a new requirement be added to the proposed rule to allow installation of seal insert segments in the ends of the seal assembly if the inserts have receded into the ends of the slats, as specified in Boeing Alert Service Bulletin 777-57A0034, Revision 6. The commenter adds that the addition of Group 4 airplanes as specified in Boeing Alert Service Bulletin 777-57A0034, Revision 6, presents an additional hardship and additional rulemaking may be necessary.

We cannot revise this final rule to add new requirements per Revision 6 of the service bulletin because we have not yet received and approved that revision. However, the commenter may request approval of an alternative method of compliance as provided in paragraph (h)(1) of this final rule, if appropriate technical data are submitted. No change is made to the final rule in this regard.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 184 airplanes of the affected design in the worldwide fleet.

The detailed inspection for cracking that is currently required by AD 2000-19-08, which is applicable to approximately 81 airplanes of U.S. registry, takes approximately 7 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on the figures discussed above, the cost impact of the current requirements of that AD on U.S. operators is estimated to be \$34,020, or \$420 per airplane, per inspection cycle.

This new action requires accomplishment of the detailed inspection for cracking on approximately 33 additional airplanes of U.S. registry. Based on the figures discussed above, the new costs to U.S. operators as imposed by this AD are estimated to be \$13,860.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Should an operator be required to accomplish the new one-time inspection for undersized seal inserts, it will take approximately 2 work hours per airplane, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this new inspection is estimated to be \$120 per airplane.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-11909 (65 FR 57282, September 22, 2000), and by adding a new airworthiness directive (AD), amendment 39-12767, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rgl"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-11-06 Boeing: Amendment 39-12767. Docket 2001-NM-35-AD. Supersedes AD 2000-19-08, Amendment 39-11909.

Applicability: Model 777 series airplanes, line numbers 1 through 369 inclusive; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (h)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct cracking or missing pieces of the cove skin, or undersized seal inserts installed in the spanwise bulb seals, on the outboard leading edge slats on the wings, which could result in skin separation or structural damage to the leading edge slats and consequent reduced controllability of the airplane, accomplish the following:

Restatement of Requirements of AD 2000-19-08

Inspection

(a) For airplanes having line numbers 2 through 265 inclusive: At the applicable time specified by paragraph (a)(1) or (a)(2) of this AD, perform detailed inspections to detect cracking of the cove skin on the outboard leading edge slats of the left and right wings at slat numbers 1 through 6 inclusive, and 9 through 14 inclusive; in accordance with Boeing Alert Service Bulletin 777-57A0034, Revision 2, dated November 19, 1998; Revision 3, dated May 4, 2000; Revision 4, dated July 20, 2000; or Revision 5, dated January 25, 2001. Repeat the inspections thereafter at intervals not to exceed 100 flight cycles or 400 flight hours, whichever occurs first.

(1) For airplanes on which the repetitive inspections required by paragraph (a) of AD 99-04-19 HAVE been initiated prior to October 10, 2000 (the effective date of AD 2000-19-08, amendment 39-11909): Inspect at the earlier of the times specified by paragraphs (a)(1)(i) and (a)(1)(ii) of this AD.

(i) Within 350 flight cycles after the most recent inspection.

(ii) At the later of the times specified by paragraphs (a)(1)(ii)(A) and (a)(1)(ii)(B) of this AD.

(A) Within 100 flight cycles or 400 flight hours, whichever occurs first, after the most recent inspection.

(B) Within 30 days after October 10, 2000.

(2) For airplanes on which the repetitive inspections required by paragraph (a) of AD 99-04-19 have NOT been initiated prior to October 10, 2000: Inspect at the earlier of the times specified by paragraphs (a)(2)(i) and (a)(2)(ii) of this AD.

(i) Prior to the accumulation of 500 total flight cycles.

(ii) Prior to the accumulation of 2,000 total flight hours, or within 30 days after October 10, 2000, whichever occurs later.

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Corrective Action

(b) If any cracking is detected during any inspection required by paragraph (a) of this AD, prior to further flight, accomplish all applicable corrective actions specified by and in accordance with Boeing Alert Service Bulletin 777-57A0034, Revision 2, dated November 19, 1998; Revision 3, dated May 4, 2000; Revision 4, dated July 20, 2000; or Revision 5, dated January 25, 2001. The corrective actions include stop drilling and repairing the crack and performing detailed inspections, slat adjustment checks, and replacement of the slats. Where the alert service bulletin specifies to contact Boeing for appropriate action: Prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD. After October 10, 2000, only Revision 4 or 5 of the alert service bulletin may be used.

Optional Modification

(c) Accomplishment of the actions specified by paragraphs (c)(1) and (c)(2) of this AD extends the repetitive inspection interval specified by paragraph (a) of this AD to 8,000 flight cycles.

(1) Install a seal insert into the spanwise bulb seals for the slats in accordance with Part 4 of Boeing Alert Service Bulletin 777-57A0034, Revision 3, dated May 4, 2000; Revision 4, dated July 20, 2000; or Revision 5, dated January 25, 2001.

(2) Within 750 days or 4,000 flight cycles, whichever occurs first, after installing the seal insert as specified by paragraph (c)(1) of this AD: Perform a detailed inspection of the interior structure of the cove skin at slat numbers 1 through 6 inclusive, and 9 through 14 inclusive, in accordance with Part 2 of the Accomplishment Instructions of the alert service bulletin.

New Requirements of This AD

Repetitive Inspections (Certain Airplanes)

(d) For airplanes having line numbers 1 and 266 and subsequent: Prior to the accumulation of 8,000 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs later, perform a detailed inspection to detect cracking of the cove skin on the outboard leading edge slats of the left and right wings at slat numbers 1 through 6 inclusive, and 9 through 14 inclusive; in accordance with Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001. Repeat the inspection thereafter at intervals not to exceed 8,000 flight cycles.

Corrective Action

(e) If any cracking is detected during any inspection required by paragraph (d) of this AD, prior to further flight, accomplish all applicable corrective actions specified by and in accordance with Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001. The corrective actions include stop drilling and repairing the crack and performing detailed inspections, slat adjustment checks, and replacement of the slats. Where the alert service bulletin specifies to contact Boeing for appropriate action: Prior to further flight, repair in accordance with a method approved by the Manager, Seattle ACO. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

One-Time Inspection—Undersized Seal Inserts

(f) For airplanes on which the optional modification described in paragraph (c) of this AD was accomplished prior to the effective date of this AD, in accordance with Part 4 of Boeing Alert Service Bulletin 777-57A0034, Revision 3, dated May 4, 2000; or Revision 4, dated July 20, 2000, using kits shipped before October 6, 2000: Within 500 flight cycles after the effective date of this AD, do a one-time detailed inspection for undersized seal inserts installed in the spanwise bulb seals of slat numbers 4, 5, 10, and 11, in accordance with Part 5 of Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001.

Note 3: An inspection accomplished prior to the effective date of this AD in accordance with Boeing Telegraphic Message M-7200-00-02516, "Incorrect Insert Part Numbers in SB 777-57A0034," dated October 13, 2000, is considered acceptable for compliance with paragraph (f) of this AD.

(1) For any seal insert of the correct size as specified in Revision 5 of the service bulletin: No further action is required by this paragraph.

(2) For any undersized seal insert as specified in Revision 5 of the service bulletin, or for any seal insert that cannot be conclusively determined to be of correct size: Prior to further flight, replace the existing seal assembly with a new seal assembly, in accordance with Revision 5 of the service bulletin.

Spares

(g) As of the effective date of this AD, no one may install a seal insert into the spanwise bulb seals of slat numbers 4, 5, 10, and 11, unless it is inspected in accordance with Part 4 of Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001, and found to be of correct size.

Alternative Methods of Compliance

(h)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) Alternative methods of compliance, approved previously in accordance with AD 99-04-19, amendment 39-11044, are approved as alternative methods of compliance with paragraph (b) of this AD.

Special Flight Permits

(i) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(j) Except as provided by paragraphs (b) and (e) of this AD: The actions shall be done in accordance with Boeing Alert Service Bulletin 777-57A0034, Revision 2, dated November 19, 1998; Boeing Alert Service Bulletin 777-57A0034, Revision 3, dated May 4, 2000; Boeing Alert Service Bulletin 777-57A0034, Revision 4, dated July 20, 2000; or Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001; as applicable.

(1) The incorporation by reference of Boeing Alert Service Bulletin 777-57A0034, Revision 5, dated January 25, 2001, is approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The incorporation by reference of Boeing Alert Service Bulletin 777-57A0034, Revision 3, dated May 4, 2000; and Boeing Alert Service Bulletin 777-57A0034, Revision 4, dated July 20, 2000; was approved previously by the Director of the Federal Register as of October 10, 2000 (65 FR 57282, September 22, 2000).

(3) The incorporation by reference of Boeing Alert Service Bulletin 777-57A0034, Revision 2, dated November 19, 1998, was approved previously by the Director of the Federal Register as of March 8, 1999 (64 FR 8230, February 19, 1999).

(4) Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(k) This amendment becomes effective on July 10, 2002.

Issued in Renton, Washington, on May 23, 2002.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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